

Abstract

The invention concerns an apparatus and a process for producing a marking on a substrate. Substrates marked in that way are applied to documents such as for example credit cards, personal identity cards or banknotes as security features to provide protection from forgery. Embodiments of those security features have diffractive or holographic structures. The production of the markings was hitherto effected by shaping from a mold. A change in the marking is possible by changing the mold, which is time-consuming. The new apparatus and the new process are intended to permit the production of individualized markings on a substrate, at a low level of apparatus expenditure.

An embodiment of the apparatus according to the invention for producing a marking (45) on a substrate, preferably a film, has a replication apparatus (41) and a laser installation (30), which co-operates with the replication apparatus (41), by radiation from the laser installation (30) being directed onto at least one irradiation region (44) of the replication apparatus (41), for producing at least one shaping region. The apparatus further has a counterpressure apparatus (42), wherein a substrate (43) is arranged between the replication apparatus (41) and the counterpressure apparatus (42) in order to shape the shaping region onto the substrate (43) in a contact region between the replication apparatus (41) and the substrate (43) and wherein the feed of the radiation for producing the shaping regions extends outside the substrate (43).

(Figure 1a)